



Tuolumne Utilities District
Job Description
COMMUNICATIONS TECHNICIAN

POSITION:	Communications Technician	DEPARTMENT:	Operations
REPORTS TO:	Operations Manager	FLSA Status:	Non-exempt
PAY RANGE:	44	DATE PREPARED:	January 2017
INCUMBENT:			

GENERAL DESCRIPTION:

Under general supervision, performs responsible and technical duties related to the installation, repair, testing, monitoring and maintenance of communication and high technology systems and software throughout District facilities. Oversees and administers the operation of Data Flow Systems, Inc.'s (DFS) Supervisory Control and Data Acquisition (SCADA) System for water and wastewater utility systems; and performs other duties as assigned.

Essential Functions: - *Essential responsibilities and duties may include, but are not limited to, the following:*

- Designs and codes computer programs, documentation forms, flow charts and diagrams to adapt water and wastewater utilities to electronic monitoring.
- Performs equipment and station testing, modifies and revises programs.
- Debugs computers and software programs to assure integrity of system.
- Selects and installs or arranges for the installation of equipment and software at both central and remote areas.
- Makes recommendations for upgrading equipment on an on-going basis.
- Installs network devices such as modems, terminals, controllers, multiplexers, printers and central and remote microcomputers.
- Maintains the SCADA system and associated remote stations via the SCADA System.
- Performs the analysis, organization and preparation of detailed programmed instructions involving a variety of data for use within the SCADA system parameters.
- Maintains the master dual server and associated servers.
- Maintenance of frequency, FM deviation and power adjustments (required by FCC).
- Installs and maintains radio transmission units (RTU).
- Installs appropriate interface hardware to indication, analog I/O and control points.
- Programs RTU parameters to communicate with master station.
- Installs and calibrates analog input devices such as level/pressure transducers, flowmeters, and voltage/amperage transducers.
- Builds main SCADA database.
- Maintains current computer backups of complete SCADA system.
- Confers with staff to ascertain nature of projects, form of source information and results required.

- Advises management and water/wastewater operators of system issues.
- Participate in training and educational programs and assigned committees as required.

Qualification Requirements:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Knowledge of:

- Principles and Practices of Federal Communications Commission (FCC) rules and regulations pertaining to the operation and maintenance of radio transmitters, analog and digital telemetering systems, frequency shift tone equipment and SCADA equipment.
- Safe work methods and safety precautions as relate to the job.
- Electronic computer programming principles, techniques and concepts.
- Operation of electronic computers and related peripheral data communications equipment.
- Working knowledge of systems analysis applicable to computer programming.
- Utility system concepts to electronic monitoring program.
- Test sets.

Skill/Ability to:

- Perform complex duties related to the installation, testing, maintenance and repair of a variety of telecommunication equipment.
- Ability to fabricate process control panels.
- Interpret plans and schematic drawings.
- Troubleshoot difficult operational issues quickly to minimize downtime.
- Program radio/data systems per District requirements.
- Understand complex written and oral directions, and communicate effectively, both verbally and in writing. .
- Maintain accurate records.
- Perform close, detail work.
- Observe all safety rules while performing work.
- Conduct work in a manner which supports the overall team effort, and which avoids disruption of one's work and the work of others.
- Establish and maintain cooperative and effective working relationships with those contacted in the course of the work including management, co-workers, technical support personnel and vendors.
- Provide excellent customer service and relations.
- Read and write at the level required for successful job performance.

Physical Demands:

The physical demands described herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to speak and hear to effectively interface with other staff members, the public, and outside vendors; maintain the capacity to sit at a computer for a period of time; walk, stand, kneel, crawl, climb, lift, pull, stoop, bend, squat, twist, turn and work in tight, confined space; ascend and descend steps, ladders and embankments; and use hands and fingers to write and to handle, gripe, feel and operate tools, pumps, equipment and machinery. Occasionally required to lift and/or move up to 50 pounds.

Specific vision abilities required by this job include close vision, distance vision, peripheral vision, and the ability to adjust focus.

Work Environment:

The work environment characteristics described below are representative of those an employee encounters while performing the essential functions of this position. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Outside: In a variety of weather conditions ranging from snow and below freezing to +100F., will be required to drive by District vehicle from site to site, and will be required to work at various heights.

Inside: Many of the job activities are performed indoors in a temperature-controlled environment. May be required to work in confined spaces.

Fumes/Gasses: Exposure to noise, dust, grease, smoke, and fumes.

Noise/Vibration: Moderate noise.

Other Requirements:

Any combination of experience and education that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Education/Certification/License:

- High school diploma or general education degree (GED).
- Must possess a valid California driver's license, have a satisfactory driving record, and be insurable by the District to operate District vehicles.
- Must have successfully completed, or successfully complete within one year of appointment, the Office of Water Programs (CSU, Sacramento) Water Distribution System Operation course, or possess a Water Distribution Operator certification, Grade 2 or higher.
- Must have successfully completed, or successfully complete within two years of appointment, the Office of Water Programs (CSU, Sacramento) Water Treatment Plant Operation, Volume 1 course, or possess a Water Treatment Operator certification, Grade 2 or higher.

Experience:

Three years of experience in the installation, maintenance, testing and repair of a variety of telecommunication equipment including a SCADA system, and working on computers or utilizing telemetry and electronic monitoring systems; exchange servers and networking systems, or an equivalent combination of education, specialized training and experience in the telecommunications field.

Work Hours:

7:00 a.m. to 4:00 p.m., Monday through Friday. Subject to change as required to meet the needs of the District. Must be able to respond to emergency callout situations as necessary and participate in standby or on-call duty including emergency response during after hours, weekends and holidays according to predetermined schedules.

I have reviewed and agree to abide by any requirements reflected in this job description.			
_____	_____	_____	_____
Supervisor's Signature	Date	Employee's Signature	Date
Approved by General Manager: Approval Date: ____ / ____ / ____			